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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/688,781

10/17/2003

Jong-Ki Lee

51088/P849

9551

23363 7590 05/10/2007
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EXAMINER

WEINER, LAURA S

ART UNIT

PAPER NUMBER

1745

MAIL DATE

DELIVERY MODE

05/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/688,781 | Applicant(s) LEE ET AL. | |
| | Examiner Laura S. Weiner | Art Unit 1745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,6,14,15 and 17-24 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-9,13 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3-4, 7-9, 13, 16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. Claims 1, 3, 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Kugai et al. (6,699,619).

Kugai et al. teaches in column 2, Example 1, an anode comprising copper foil laminated with a sheet of metallic lithium foil [*lithium metal*] comprising a first layer comprising Li₂S-SiS₂-Li₃PO₄ (thickness a) [*protection layer*] and a second layer comprising Li₃PO₄ (thickness b) [*pretreatment layer Li₃PO₄*]. The thickness of the layers varies and are shown in Table 1. Kugai et al. teaches in Table 1 that the thickness of layer b is 0.45 um [*4500 Å*] and that the thickness of layer a is 0.8 um. [*protection layer having a thickness between 1000Å and 50 um*].

3. Claims 1, 3-4, 7-9, 13, 16 rejected under 35 U.S.C. 102(e) as being anticipated by Kugai et al. (6,699,619).

Kugai et al. teaches in column 2, Example 1, an anode comprising copper foil laminated with a sheet of metallic lithium foil [*lithium metal*] comprising a first layer comprising Li₂S-SiS₂-Li₃PO₄ which was a target in an argon-gas atmosphere (thickness a) [*pretreatment layer Li₃PO₄*] and a second layer comprising Li₃PO₄

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(thickness b) *[protection layer]*. The thickness of the layers varies and are shown in Table 2. Kugai et al. teaches in Table 2 that the thickness of layer a is 0.1 μm *[1000 Å]* and the thickness of layer b is 0.3 μm *[protection layer having a thickness between 1000 Å and 50 μm]*.

Allowable Subject Matter

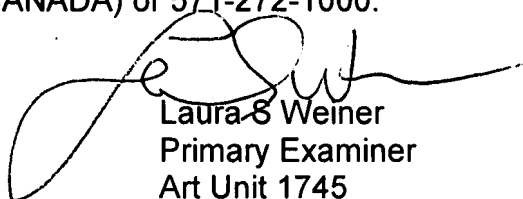
4. Claims 5-6, 14-15, 17-24 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Laura S. Weiner
Primary Examiner
Art Unit 1745

May 9, 2007